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A New Anthicid Beetle (Coleoptera, Anthicidae) Associated with Ditch Reeds in Marshy Places of Japan[1]

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Abstract *Anthicus* (*Odacanthicus*) *watarasensis*, a new subgenus and a new species of the Anthicidae, is described and illustrated. It inhabits the reed community in marshes of Tochigi, Saitama and Ibaragi Prefectures, northern Kantô, Japan.

Key words: Anthicidae; new subgenus; new species; Japan.

Through the kindness of Mr. Hideo OHKAWA, Ashikaga City, and Dr. Masataka SATÔ, Nagoya Women's University, we had an opportunity to examine specimens of an interesting anthicid beetle collected in several marshes at the northern part of Kantô District, viz., Watarase Yûsuichi Moor, Tsuruta-numa Marsh and Sakomashitchi Marsh in Tochigi Prefecture, Morinji-numa Marsh in Saitama Prefecture and Koibuchi and Kichise in Ibaragi Prefecture. The beetle has a slender flattened body, and is wandering on the stems of the ditch reed in marshes.

It is apparent that this beetles is a new species belonging to the genus *Anthicus* (s. lat.), as it is characterized by conformation of male genitalia. The outline of head and pronotum seems to direct its position to the subgenus *Sticticomus*[2] PIC, 1894, but the mesothoracic organs are peculiar, especially in the feature of mesosternal process, the tip of which does not reach the metasternal transverse carina. Consequently, we have come to the conclusion that a new subgenus should be established for this species in the genus *Anthicus*.

Judging from the body shape and the wandering behavior on the ditch reed, this beetle seems to spend a life similar to that of odacanthine or *Demetrias* species of Carabidae.

Abbreviations used in this paper are as follows: HL=maxim length of head measured from the apex of clypeus to hind margin; HW=width of head except for eyes; WAE=width of head across eyes.

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[1] Studies on Anthicidae of Japan (Coleoptera), II.

[2] Although pervious authors (BONADONA, 1958; UHMANN, 1976, 1992) usually regarded *Sticticomus* as a full genus, we prefer to retain it in the genus *Anthicus* (s. lat.) until generic reviews on the world basis are published.

Odacanthicus subgen. nov.

Type species: *Anthicus* (*Odacanthicus*) *watarasensis* subgen. et sp. nov.

Body very elongate, flattened dorso-ventrally. Pubescence single, fine and sparse on dorsum; punctures large and sparse.

Head oval, with hind margin uniformaly rounded throughout, not angulate at sides, and not incised at the middle; fronto-clypeal suture very fine, arcuate dorsally; clypeus relatively large. Eyes small, subconically prominent. Antennae long, moderately stout, gradually becoming thicker apicad, four apical segments slightly thickened. Maxilla stout, with last segment of palpus large, subtriangular, and subtruncated at apex. Labial palpus short and small, 3-segmented, with last segment spatulate. Gula broad. Mentum concave on disc. Pronotum elongate, not constricted at sides, similar in outline to that of *Sticticomus* species, gently declivous in apical 1/3, nearly flattened in basal 2/3, and devoid of any tumor on disc; collar distinct; basal groove distinct, entire throughout. Scutellum small. Elytra elongate-oval, glabrous, nearly flattened on disc at base, faintly convex behind, abruptly declivous at sides, and conjointly dehiscent at apex; sutural line faintly discernible in apical third. Hind wings (Fig. 6) rudimentary, especially in the apical menbranous portion, undoubtedly incapable of flying.

Mesosternum (Fig. 5) long, not expanded laterally, though the lateral process is rather broad; ante-lateral margin not ciliate, almost straight to near lateral apex which is furnished with a tuft of a few long setae; mesosternal process narrow, straight and relatively short, with the apex pointed, not reaching the metasternal transverse carina, but at most touching the hook-like tubercle lying before the carina. Mesepisternum moderately developed, just contiguous to each other on midline, concave throughout along mesosternal suture. Mesepimeron reduced, concealed in mesepisternum, metepisternum and elytron. Metasternum weakly convex on disc, distinctly concave in posterior half beside midline, slightly depressed along the anterior transverse carina which forms the external hind border of mesocoxal cavities, and triangularly notched at apex. Metendosternite rather large, with the furcal stalk stout. Abdomen with 1st visible sternite the longest, more than twice as long as 2nd; 2nd to 4th subequal in length to one another; 5th gently arcuate or slightly subtruncate at apical margin; 8th abdominal tergite (Fig. 7) of male exposed at apical portion which is concave throughout. Legs slender; femora weakly clavate; tibiae slender, with tibial spurs short; front tarsal segments compactly articulated, 2nd to 4th strongly dilated apicad, incised at apical margin; middle and hind tarsi with 1st segment proportionally much longer than that of front tarsus.

Aedeagus with tegmen (Fig. 8) similar in conformation to that of *Anthicus* (s. str.), elongate-fusiform in dorsal aspect, sinuate in lateral view; gonoporal armature

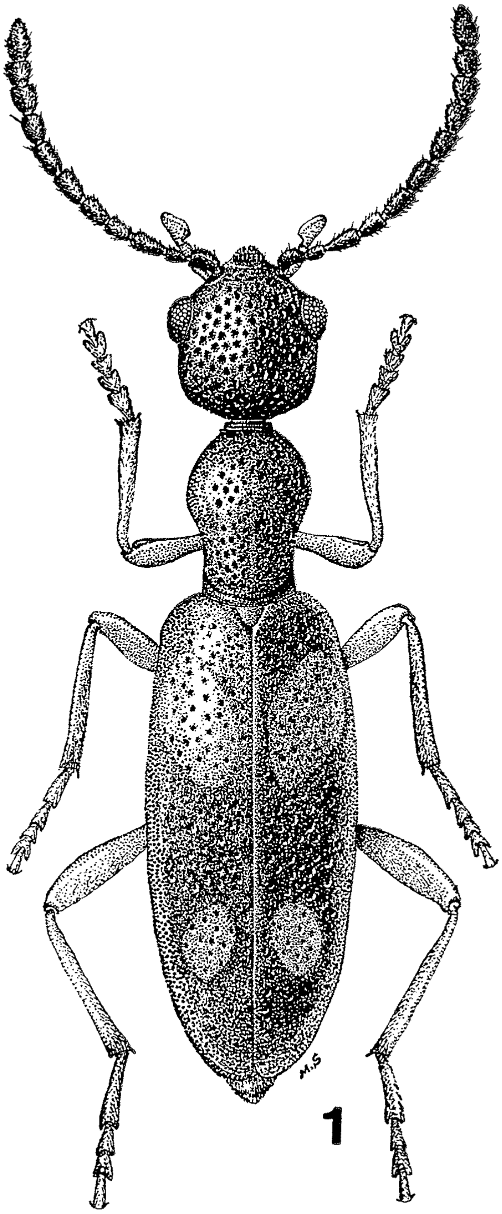


Fig. 1. *Anthicus* (*Odacanthicus*) *watarasensis* sp. nov., male.

consisting of a tube ending in a patch of spines.

External sexual dimorphism not distinct except for the feature of 8th abdominal tergite, which is entirely concealed in female.

Remarks. This new subgenus is superficially allied to *Sticticomus* Pic, 1894 in the shape of head and pronotum, but differs from the latter and other related subgenera in a combination of the following features: body very sparsely pubescent as in the members of *Leptaleus* or *Pseudoleptaleus*; hind wings reduced; mesosternum not expanded laterally, devoid of setal fringe at sides; mesosternal process not reaching the anterior carina of metasternum, but at most touching the hook-like tubercle lying a little before the carina.

Etymology. *Odacanthicus* is a neo-Latin name formed by combing *odac-* from a carabid genus *Odacantha* with *-anthicus*. The gender is masculine.

Anthicus* (*Odacanthicus*) *watarasensis sp. nov.

[Japanese name: Watarase-mizugiwa-arimodoki]

(Figs. 1–8)

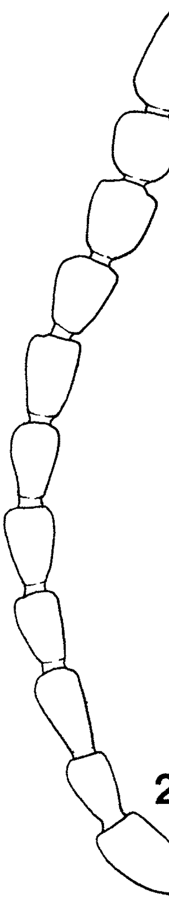
Length: 2.75–3.75 mm; width: 0.75–1.05 mm.

Male. Body slender, about 3.7 times as long as wide, somewhat depressed dorso-ventrally. Color black; coxae, tarsi and mouthparts reddish brown; maxillary palpi, femora and hind tibiae blackish brown; front and middle tibiae usually more diluted with red at apices; each elytron adorned with two yellowish brown patches. Pubescence single, very short and sparse, barely detectable on dorsum, somewhat long but never dense on ventrer; fine and dense on antennae, legs, maxillary palpi and scutellum; each abdominal sternite provided with a pair of long erect fine setae beside midline.

Head oval, about 1.2 times as long as wide (HW/HL=1.19, WAE/HL=1.075), gently convex above, rarely with circular depression behind antennal sockets; occipital margin uniformly rounded; punctures large, shallow, sparse, irregular in density, separated by half to two times or more their diameters; usually sparser on mesal portion; interstices very finely shagreened; fronto-clypeal suture detectable as a very fine and dorsally curved groove by careful observation; clypeus large, finely rugulose, with the apical margin nearly straight; hind corners through hind margin broadly and uniformly rounded, not incised at the middle. Eyes relatively small, moderately prominent, subtriangular in profile, with maximal axis diagonal, separated by twice their entire (diagonal) diameter. Antennae about 0.89 times as long as the length of elytra, 2nd the shortest, 3rd long, about 6/8 times as long as 2nd, 8th to 10th somewhat larger and slightly more dilated apicad, 11th depressed, with a faint constriction at the middle of outer face, and attenuated at apex. Last segment of maxillary plpus (Fig. 4) large, triangularly expanded apically, densely clothed with minute setiferous papillae along apical margin; penultimate segment short, provided with two long setae on inner projection. Last segment of labial palpus (Fig. 3) small and oval, provided with minute sensorial setae at apex. Gula broad, shining due to lack of shagreened microsculpture, with slight indication of wrinkles.

Pronotum about 1.37 times as long as wide, about 0.83 times as wide as the width of head across eyes, widest at apical 3/10; sides then arcuately narrowed forward, gently tapered behind in median 1/3, and nearly subparallel-sided in basal

Figs. 2–8. *Anthicus* (*Odacanthicus*) *watarasensis* sp. nov. —— 2, Male antenna; 3, labium; 4, maxillary palpus; 5, mesosternum and metasternum with their side pieces; 6, hind wing of female; 7, eighth abdominal tergite of male; 8, male genitalia.



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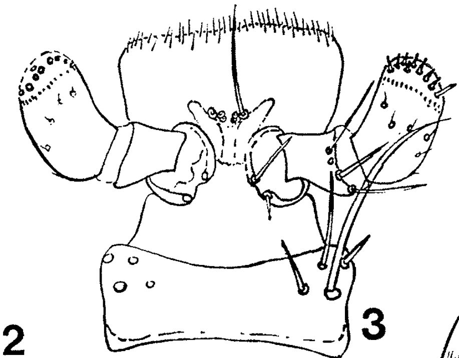

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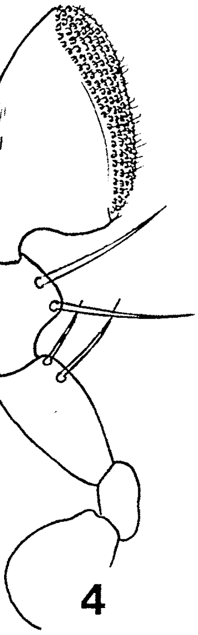

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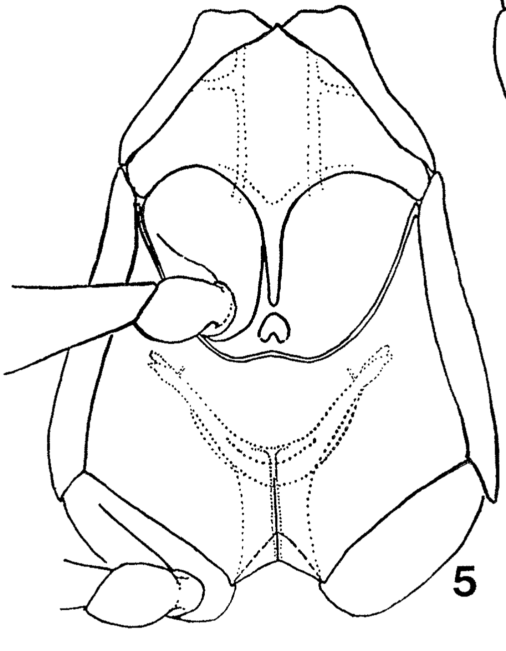

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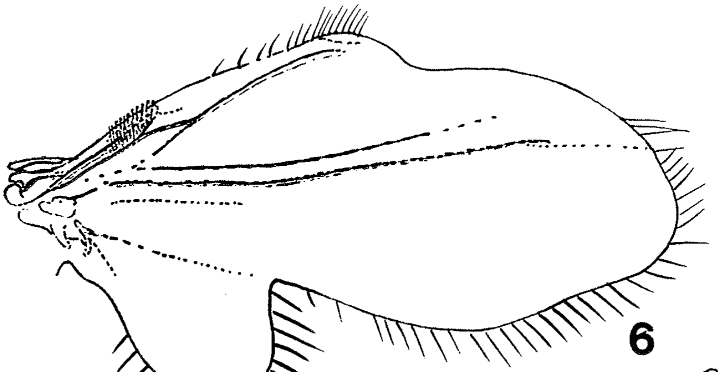

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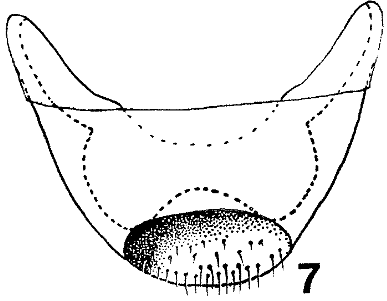

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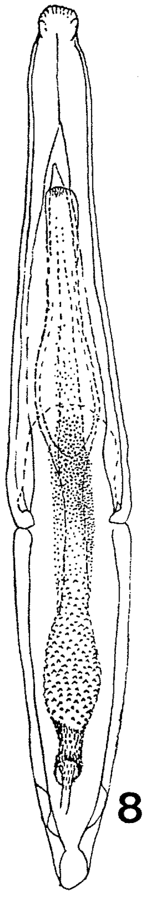

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1/3; surface gently declivous in apical 1/3, nearly flattened in basal 2/3, shallowly but distinctly punctate; punctures a little smaller and apparently shallower than those on head, uneven in density, sparse at center and portion along the midline; interstices finely and microscopically shagreened; basal groove clearly impressed throughout. Scutellum small, semioval, declivous toward base and microscopically punctate.

Elytra conjointly about twice as long as wide, widest near the middle, slightly and uniformly arcuate throughout at sides; surface almost flattened on disc at base, faintly convex behind, abruptly declivous at sides; punctures variable in size and density, usually more vaguely indicated than those on pronotum, becoming finer and sparser toward sides and apex, and separated by one to two times or more their diameters even at the densest post-scutellary portion; interstices smooth, rather shining, devoid of microsculpture as on pronotum, sometimes rugulose at base; each elytron usually with two yellow maculae which are variegated in size and shape, basal macula large, obliquely elliptical or quadrate as a rule, rarely circular, neither reaching suture nor side margin, located before the middle, posterior one much smaller, variable in shape, oval, circular, reniform, transverse elliptical and so on, occasionally entirely evanescent; sutural line fine, inconspicuous, barely discernible in apical 1/3.

Prosternum finely granulato-rugulose, with prosternal suture indistinct; prosternal process very faint. Mesosternum weakly shining, faintly microreticulate, very sparsely scattered with obscure punctures, nearly glabrous at sides; mesosternal process very narrow, pointed at apex which is a little apart from metasternum. Metasternum weakly shining, microreticulate, sparsely scattered with small and obscure punctures, the punctation and reticulation hardly discernible at the centro-posterior portion; medio-longitudinal groove very fine, occasionally not detectable.

Abdominal sternites sculptured in a manner similar to that on metasternum, glabrous along hind margins; 1st visible abdominal sternite about 2.3 times as long as 2nd, 2nd to 5th subequal in length; apical margin of 5th faintly arcuate at the middle. Seventh abdominal tergite subtruncated at apex; 8th abdominal tergite with exposed portion setose and concave.

Legs slender; front tarsus relatively short, 1st segment weakly dilated apicad, a little longer than 2nd, 2nd strongly dilated, incised at apical margin, and similar in size and shape to 3rd, 4th larger than 3rd, with the apical margin deeply incised, claw segment short, nearly equal in length to 1st.

Aedeagus with tegmen (Fig. 8) elongate-fusiform, weakly constricted at apex; median lobe short, reaching apical 1/3 of tegmen; internal sac armed with minute granules and small scaly spines; gonoporal armature consisting of fine spines.

Female. External sexual dimorphism is not always distinct except for the feature of the 8th abdominal tergite mentioned in the description of the subgenus, but the following features of female may be available for sexual distinction: body slightly thicker, elytra nearly parallel-sided in the middle portion; 7th abdominal tergite rounded at apex.

Type series. Holotype ♂, Watarase-Yûsuichi, Fujioka-cho, Tochigi Pref., 4. V. 1991, H. OHKAWA leg. Allotype ♀ and 9 paratypes, Watarase-Yûsuichi, Fujioka-cho, 4–6. V. 1991, H. OHKAWA leg. Paratypes: 10 exs., Tsuruta-numa, Utsunomiya City, Tochigi Pref., 18. V. 1991, H. OHKAWA leg.; 1 ex., Sakoma Marsh, Ashikaga City, Tochigi Pref., 13. V. 1979, H. OHKAWA leg., 1 ex., do., 5. IV. 1981; 1 ex., Morinji-numa, Tatebayashi City, Saitama Pref., 20. V. 1990, H. OHKAWA leg.; 3 exs., Koibuchi, Uchihara-cho, Ibaragi Pref., 30. III. 1986, S. OHMOMO leg.; 4 exs., Kichise, Tsuchiura City, Ibaragi Pref., S. OHMOMO leg.; 2 exs., Kandachi, Ibaragi Pref., 14. VI. 1986, S. OHMOMO leg.; 2 exs., Yamatonishi Oike, Yamato-mura, Ibaragi Pref., 6. V. 1989, S. OHMOMO leg.; 2 exs., Ueno Ike, Iwase-cho, Ibaragi Pref., 25. IV. 1987, S. OHMOMO leg.; 1 ex., Ami-cho, Ibaragi Pref., 10. IV. 1986, S. OHMOMO leg.; 1 ex., Iikura, Ami-cho, Ibaragi Pref., 10. V. 1987, S. OHMOMO leg.

Type depository. The holotype and some paratypes are deposited in the collection of the Entomological Laboratory, College of Agriculture, Ehime University, Matsuyama, and the allotype and several paratypes are in the National Science Museum (Nat. Hist.), Tokyo.

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